

DETAILED ACTION

Claims 1-3 and 17-21 are pending. Claims 4-16 are canceled.

The text of those sections of 35 U.S. Code not included in this action can be found in the previous Office Action issued 07-29-2011.

All previously asserted prior art rejections are withdrawn in view of new grounds of rejection.

Claim Rejections - 35 USC § 112

The claim rejection under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement on claims 1-3 is withdrawn because the claim has been amended.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Hikata et al. (JP 07-094193).

Regarding claims 1, 3, 17, and 18 Hikata et al. teach that forming the negative electrode into an electrode can 7 for a manganese dry cell which has a wall and bottom cover (par. 2, fig. 1). Hikata disclose that the can is primarily formed of zinc with

additives of bismuth in an amount between 30 and 8,000 ppm (0.009%-2.513%) (par. 6). Hikata et al. further disclose that the alloy can contain between 10 and 1,000 ppm of magnesium (0.0003%-0.0372%) or barium (0.002%-0.210%) with the balance being zinc (97.49%-99.99%)(par. 6). Hikata et al. disclose that the can should not contain lead (par. 5). Hikata et al. further disclose that mechanical working of a zinc alloy is performed at a temperature between 180 °C and 220 °C and that the zinc alloy is formed into a pellet then pressed into a can (par. 6, 10-14). Applicant discloses a similar manufacturing process whereby a zinc alloy pellet is punched into a can at between 120 and 210 °C. Because the manufacturing process and the components used by Hikata and applicant are so similar, it is the position of the examiner that the zinc alloy can of Hikata would have the same material characteristics as applicant claims. Thus the zinc can of Hikata would inherently have an average crystal grain diameter of between 8 and 25 microns, and would inherently have a variation in crystal grain diameter at the inside and outside of the can wall range from 1.1 to 1.4. "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999); MPEP 2112.

Claim Rejections - 35 USC § 103

Claims 2 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hikata et al. as applied above, further in view of Ferraro et al. (US 2002/0081490).

Regarding claims 2 and 19-21, Hikata et al. disclose that the can is formed by rolling and punching (deep drawing) hexagonal pellets of zinc alloy at between 180 °C and 220 °C then forming the pellets into cup shape with a bottom cover to make the final can 7 (par. 10-13, fig. 1). Hikata et al. further disclose that the surface of the anode cans were subsequently polished with sandpaper (trimmed) (par. 11).

Hikata discloses that the anode can 7 is cup shaped but does not disclose that the can is cylindrical. However, Ferraro disclose conventional alkaline battery casings (cans) are cylindrical (par. 3, abstract). Therefore, it would have been obvious to one of ordinary skill in the art to make the can of Hikata into a cylindrical shape because Ferraro disclose that such a configuration is convention.

Response to Arguments

Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACOB MARKS whose telephone number is (571)270-7873. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ula Ruddock can be reached on 571-272-1481. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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